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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/679,075

10/03/2003

Steven Durham

40120-10024

3549

21788

7590

07/28/2006

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EXAMINER

A, PHI DIEU TRAN

ART UNIT

PAPER NUMBER

3637

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/679,075

Applicant(s)

DURHAM, STEVEN

Examiner

Phi D. A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Dinwoodie(D408554) in view of Saunders (D422668).

Dinwoodie shows a shelter without walls comprising a canopy having a width and a length defining a sheltered area, a supporting structure connected to and supporting the canopy and permitting substantially unobstructed access to the sheltered area, a photovoltaic device capable of producing an electrical current when exposed to a light source, the device associated with the canopy to produce electrical current from sunlight, an electrical load operatively connected to the device (inherently so as the electricity generated is to be used with a load), the device is contained in the canopy, the device forming the canopy, the canopy having an upper surface and an underside.

Dinwoodie does not show the supporting structure being laterally spaced past the edge of the canopy so as to permit substantially unobstructed access to the shelter area.

Saunders (figures 3, 5) shows a shade supporting structure being laterally spaced past the edge of the canopy so as to permit substantially unobstructed access to the shelter area.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's shelter to show the supporting structure being laterally spaced

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past the edge of the canopy so as to permit substantially unobstructed access to the shelter area as taught by Saunders because having the supporting structure located on the outside of the shade area would allow for the free and unobstructed use of the area under the shade.

3. Claims 1-5, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over D192723 in view of Laaly et al (4860509), and Saunders (D422668).

D192723 shows a shelter without walls comprising a canopy having a width and a length defining a sheltered area, a supporting structure connected to and supporting the canopy and permitting substantially unobstructed access to the sheltered area.

D192723 does not show a photovoltaic device capable of producing an electrical current when exposed to a light source, the device associated with the canopy to produce electrical current from sunlight, an electrical load operatively connected to the device, a light emitting coating and the device is capable of generating electricity from the light emitted by the light emitting coating, the supporting structure being laterally spaced past the edge of the canopy to permit substantially unobstructed access to the sheltered area.

Saunders (figures 3, 5) shows a shade supporting structure being laterally spaced past the edge of the canopy so as to permit substantially unobstructed access to the shelter area.

Laaly et al discloses a photovoltaic device (figure 2-3) capable of producing an electrical current when exposed to a light source, the device associated with the canopy (10) to produce electrical current from sunlight, an electrical load (structures that use the electricity) operatively connected to the device, the device being formed of crystalline photovoltaic systems (col 6 line 63), multiple layers of flexible thin film photovoltaic systems (col 8 line 46), a light emitting

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coating (14) and the device is capable of generating electricity from the light emitted by the light emitting coating.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify D192723's structure to show a photovoltaic device capable of producing an electrical current when exposed to a light source, the device associated with the canopy to produce electrical current from sunlight, an electrical load operatively connected to the device, a light emitting coating and the device is capable of generating electricity from the light emitted by the light emitting coating because it would enable the canopy to produce electricity for lighting structures as taught by Laaly et al, and the supporting structure being laterally spaced past the edge of the canopy to permit substantially unobstructed access to the sheltered area since having the supporting structure located on the outside of the shade area would allow for the free and unobstructed use of the area under the shade.

Per claims 2-5, 13, D192723 as modified shows the device being supported by the canopy, the device is contained in the canopy, the device forming the canopy, the device is selected consisting of crystalline photovoltaic systems, flexible thin film photovoltaic systems, a light emitting coating (14), the device is capable of generating electricity from the light emitted by the light emitting coating, and the device having support outside of the sheltered area.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dinwoodie in view of Saunders (D422668) as applied to claim 1 above and further in view of Pat et al (6423894).

Dinwoodie as modified shows all the claimed limitations except for a second photovoltaic device directed toward the ground.

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Pat et al discloses a first and second photovoltaic device (multiple layers of films 28), the second layer being directed toward the ground (closer to the ground).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's modified structure to show a second photovoltaic device directed toward the ground because it would enable the more efficient collection of solar energy and converting into electrical energy as taught by Pat et al.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dinwoodie in view of Saunders (D422668) and Pat et al (6423894) as applied to claim 6 above, and further in view of Kowalski (5570000)

Dinwoodie as modified shows all the claimed limitations except for an artificial light source being affixed to the underside or dispersed within the device.

Kowalski discloses an artificial light source (42) being affixed to the underside of a canopy structure.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's modified structure to show an artificial light source being affixed to the underside or dispersed within the device because it would enable the lighting of the area beneath the canopy as taught by Kowalski.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over D192723 in view of Laaly et al (4860509), and Saunders (D422668) applied to claim 5 above and further in view of Albright et al (5674325).

D192723 as modified shows all the claimed limitations except for the photovoltaic device being transparent.

Albright et al discloses photovoltaic device being transparent (col 6 lines 23-24).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify D192723's modified structure to show the photovoltaic device being transparent because it would enable the light to pass through the film transparent film layer to reach the semiconductor layer to enable the generation of electricity as taught by Albright et al.

Per claim 9, D192723 as modified show the device being composed of multiple layers of flexible thin film transparent photovoltaic material.

7. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over D192723 in view of Laaly et al (4860509), and Saunders (D422668) as applied to claim 1 above and further in view of Schoniger et al (4903172)

D192723 as modified shows all the claimed limitations except for a light emitting diode associate with the photovoltaic device, the LED being capable of displaying human readable information.

Schoniger et al (figure 1, col 3 line 42) shows a light emitting diode associate with the photovoltaic device, the LED being capable of displaying human readable information

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify D192723's modified structure to show a light emitting diode associate with the photovoltaic device, the LED being capable of displaying human readable information because it would allow for the economical and easy display of advertising information as taught by Schoniger et al

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8. Claims 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over D192723 in view of Laaly et al (4860509), Saunders (D422668) and Schoniger et al as applied to claim 10 above and further in view of Kruangam (5656823).

D192723 as modified shows all the claimed limitations except for the light emitting diode being a flexible thin film emitting diode.

Kruangam discloses the light emitting diode being a flexible thin film emitting diode.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify D192723's modified structure to show the light emitting diode being a flexible thin film emitting diode because it would enable the emitting of light ranges from infrared to the visible regions of the electromagnetic spectrum and thus able to display colors of the visible light as taught by Kruangam

9. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over D192723 in view of Laaly et al (4860509), and Saunders (D422668) as applied to claim 1 above, and further in view of Robbins (5107637)

D192723 as modified shows all the claimed limitations except for the load being selected from the group consisting of the power distribution grid of a utility company and a battery, the battery being operatively connected to a light, which illuminates the sheltered area.

Robbins shows a load consisting of a battery, the battery being operatively connected to a light, which illuminates the sheltered area.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify D192723's modified structure to show the load being selected from the group consisting of the power distribution grid of a utility company and a battery, the battery



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being operatively connected to a light which illuminates the sheltered area because using battery to store collected energy to illuminate a sheltered area would enable the lighting of a sheltered area at night without having to utilize power from power plants as taught by Robbins.

***Response to Arguments***

10. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows different supporting device.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 571-272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phi Dieu Tran A

7/21/06